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NEW CLAIMS

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1. A system (1) for detecting the presence of moisture, comprising at least one electronic sensor (2.i) for detecting the presence of moisture and at least one reading device (4.1) for obtaining information from the at least one sensor about the presence of moisture, wherein the at least one sensor (2.i) comprises a resonant circuit (6) which is at least partly formed from a moisture sensitive material (8), the electrical resistance of which changes when the material (8) comes into contact with moisture, the reading device (4.1) comprises means (14) for generating an electromagnetic interrogation field comprising at least one frequency component corresponding to a resonance frequency of the resonant circuit (6) and for recording the response of the at least one sensor (2.i) to the electromagnetic interrogation field to obtain information about the presence of moisture at the at least one sensor, characterized in that, the electrical resistance of the material (8) increases when the material comes in to contact with moisture and the reading device (4.1) comprising transmitter-receiver means (14) for wirelessly generating the electromagnetic interrogation field and for wirelessly recording the response of the at least one sensor (2.i) to the electromagnetic interrogation field to obtain the information about the presence of moisture at the at least one sensor (2.i). if the at least one sensor (2.i) is wirelessly brought into the electromagnetic interrogation field
2. A system according to claim 1, characterized in that the moisture sensitive material (8) is included in the resonant circuit (6) in such a manner that the Q factor of the resonant circuit (6) decreases when the resistance of the moisture sensitive material (8) increases.
3. A system according to claim 1, characterized in that the moisture sensitive material (8) is included in the resonant circuit (6) in

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such a manner that the Q factor of the resonant circuit (6) increases when the resistance of the moisture sensitive material (8) increases.

4. A system according to any of the preceding claims, characterized in that the resonant circuit at (6) least comprises an LC circuit (10,12).

5. A system according to claim 4, characterized in that the entire LC circuit (10,12) or at least part of the LC circuit (10,12) is built up from the moisture sensitive material (8).

6. A system according to any of the preceding claims, characterized in that the moisture sensitive material (8) comprises a binding agent capable of swelling in moisture, in which binding agent electrically conductive particles are included.

7. A system according to any of the preceding claims, characterized in that the moisture sensitive material (8) comprises a binding agent in which particles capable of swelling in moisture and electrically conductive particles are included.

8. A system according to any of the preceding claims, characterized in that the moisture sensitive material (8) is arranged on a carrier material in the form of a coating.

9. A system according to claims 4 and 8, characterized in that at least part of the LC circuit (10,12) is formed by the coating.

10. A system according to any of the preceding claims, characterized in that the transmitter-receiver means (14) are designed as a transmission system for detecting an electromagnetic response signal generated by the at least one sensor (2.i), in response to the electromagnetic interrogation field.

11. A system according to claim 10, characterized in that, in use, the reading device (4.1) determines on the basis of the intensity of the detected response signal to what extent the at least one sensor (2.i) is in contact with moisture.

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12. A system according to claims 2 and 11, characterized in that the reading device (4.1) comprises a threshold circuit to determine whether the detected intensity is below a predetermined value.

13. A system according to any of claims 1-9, characterized in that the transmitter-receiver means (14) are designed as an absorption system for detecting energy taken up from the interrogation field by the at least one sensor (2.i) in response to the electromagnetic interrogation field.

14. A system according to claim 13, characterized in that, in use, the reading device (4.1) determines on the basis of the amount of energy absorbed by the at least one sensor (2.i) to what extent the at least one sensor (2.i) is in contact with moisture.

15. A system according to claims 2 and 13, characterized in that the reading device (4.1) comprises a threshold circuit (18) to determine whether the amount of energy absorbed is below a predetermined value.

16. A system according to any of the preceding claims, characterized in that the reading device (4.1) generates an alarm signal when moisture is detected by means of the at least one sensor.

17. A system according to any of the preceding claims, characterized in that the system (1) is also designed as an identification system in which the at least one sensor (2.i) comprises a microprocessor (22) connected with the resonant circuit (6), in which microprocessor (22) an identification code is stored, which identification code is passed to the resonant circuit (6) when the resonant circuit (6) is resonated by the electromagnetic interrogation field, and the reading device (4.1) being arranged to read the identification code by means of the electromagnetic interrogation field.

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18. A system according to any of the preceding claims, characterized in that the system further comprises a central control unit (24) which is, optionally wirelessly, connected with the at least one reading device (4.1)

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for obtaining information about the presence of moisture at the at least one sensor (2.i).

19. A sensor (2.i) of the system according to any of the preceding claims.

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